

CLAIMS

What is claimed is:

1. A solar cell array comprising:
 - a first solar cell having a backside comprising a first area of a first electrical polarity and a second area of a second electrical polarity; and
 - a plurality of contact points on the first area and the second area, the contact points on the first area being electrically coupled to corresponding contact points on an area on a backside of a second solar cell by separate pieces of interconnect leads.
- 10 2. The solar cell array of claim 1 wherein each of the first area and the second area has at least three contact points.
3. The solar cell array of claim 1 wherein each of the pieces of interconnect leads comprises a strip of conductive material having a curve for strain relief.
4. The solar cell array of claim 3 wherein the strip of conductive material comprises copper coated with a material selected from a group comprising tin and solder.
- 15 5. The solar cell array of claim 1 wherein each of the pieces of interconnect leads comprises a strip of perforated conductive material.
6. The solar cell array of claim 1 wherein the pieces of interconnect leads 20 comprise three interconnect leads.

7. The solar cell array of claim 1 wherein each of the pieces of interconnect leads is soldered to a contact point on the first area and to a corresponding contact point on the area on the backside of the second solar cell.

8. The solar cell array of claim 1 further comprising a bus bar electrically coupled to the second area.

9. The solar cell array of claim 1 further comprising a third solar cell having an area that is electrically coupled to the second area.

10. The solar cell array of claim 1 wherein the solar cell array is part of a solar cell module.

11. A solar cell array comprising a first backside-contact solar cell having a plurality of contact points that are electrically coupled by individual pieces of interconnect leads to corresponding contact points on a second backside-contact solar cell.

12. The solar cell array of claim 11 wherein at least one of the individual pieces of interconnect leads comprises a curved strip of conductive material.

13. The solar cell array of claim 12 wherein the curved strip of conductive material comprises copper having an outer coating.

14. The solar cell array of claim 13 wherein the outer coating comprises tin.

15. The solar cell array of claim 11 wherein at least one of the individual pieces of interconnect leads comprises a strip of perforated material.

16. The solar cell array of claim 11 wherein the individual pieces of interconnect leads comprise three interconnect leads.

17. A method of fabricating a solar cell array, the method comprising:
 - using a first interconnect lead to electrically couple a first contact point on a backside of a first solar cell to a second contact point on a backside of a second solar cell; and
 - 5 using a second interconnect lead to electrically couple a third contact point on the backside of the first solar cell to a fourth contact point on the backside of the second solar cell, wherein the first contact point and the third contact point are on a conductive area on the backside of the first solar cell.
18. The method of claim 17 wherein the first interconnect lead comprises a 10 curved strip of conductive material.
19. The method of claim 18 wherein the conductive material comprises copper coated with tin.
20. A solar cell array comprising:
 - a first backside-contact solar cell;
 - 15 a second backside-contact solar cell adjacent to the first backside-contact solar cell in a solar cell array; and
 - a plurality of connection means for electrically coupling the first backside-contact solar cell to the second backside-contact solar cell.
21. The solar cell array of claim 20 further comprising a bus bar electrically 20 coupled to the second backside-contact solar cell.

22. The solar cell array of claim 20 wherein each of the plurality of connection means comprises a strip of curved conductive material.